



U.S. DEPARTMENT OF ENERGY

# TECHNICAL MANUAL

OFFICE OF NATIONAL DEFENSE PROGRAMS

Albuquerque Operations Office

## Defense Programs Packaging Database

April 1998

Revision 3

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### US DOE TECHNICAL MANUALS

Technical Manuals are issued to describe and make available to DOE contractors and the public methods acceptable to the DOE of implementing specific parts of the Department's regulations, to delineate techniques used by DOE in evaluating specific problems or postulating accidents, or to provide guidance.

Technical Manuals are not substitutes for regulations, and compliance with them is not required. Methods and solutions different from those set out in the guides will be acceptable if they provide a basis for finding that the regulation has been met.

United States Government

Department of Energy

# memorandum

Albuquerque Operations Office

DATE: APR - 9 1998

REPLY TO  
ATTN OF: NESD:GVB


SUBJECT: AL Defense Programs (DP) Packaging Database Technical Manual (TM) Revision 3

TO: Those on the Attached List

Attached for your use is the TM, "Defense Programs Packaging Database," Revision 3, dated April 1998. Please add the attachment to your manual, replace the old cover and the title page, and destroy the superseded pages. A complete revised TM is provided to new addressees.

This packaging database provides pertinent information for authorized shipments between consignees and consignors. Organizations performing packaging of DP Type B nuclear components were directed to implement the use of this TM when the document was first issued in April 1996. The DOE/AL will refer to this TM during audits and assessments of offsite packaging activities. Your cooperation is appreciated.

If you need additional information please contact me at (505) 845-4607, or e-mail at gbinns@doeal.gov.

  
Glenn V. Binns  
DP Packaging Manager  
Nuclear Explosive Safety Division

Attachment

cc w/attachment: see attached list

## DP Packaging Database Distribution List

<b>Name</b>	<b>Location</b>
Audrain, Charles	AS-FM&T/KC
Baker, Bobby	MHC
Barela, Max	WSD, AL
Barelas, J. Lawrence	WSD, AL
Benson, Ronald	MHC
Berglund, Patricia G.	MS A-316, LAAO
Binns, Glenn	WSD, AL
Blackburn, Mark	AAO
Boissiere, Kathie	NPD, AL
Buckridge, Dena	AL, WSD
Bulfinch, L.	SRO
Carpenter, Phil A.	YSO/OR
Chilcoat, Tony	Y-12, LMES
Cunningham, James D.	LMES, Y-12, Oak Ridge
Field, J. Greg	WMNW, Hanford
Geinitz, R.	SSOC/RFFO
Giersch, Darla	SNL/NM MS 0483
Gronager, John	MS 0775, SNL/NM
Guthrie, Arthur	MS C931, LANL
Hernandez, Tony	MS 0483 SNL/NM
Johnson, Jim	LANL, NM
Jones, Robert E.	MHC
King, Nate	LANL
Kirby, John	AAO
Laskar, George	KAO
Lee, Lester	DP-22, HQ
Levine, Ralph	WSD, AL
Lo, Ting-Yu	MS L-125, LLNL
Lovelady, Cletus E.	MHC
Lurette, J.P.	NV/NESS
Luna, Larry	MS 0790, SNL/NM
MaGouirk, Wayne	Bldg. 12-107, MHC
McCollum, David	BUS-4, MS P274, LANL
McCormick, Mathew S.	RFFO
McEvoy, Tim	TASD, AL
Miranda, Grace	MS 9281, SNL/CA
Monette, Debbie	WSD, AL
Monson, Robert D.	MS 9035, SNL/CA
Myers, Patrick	LANL, NM
Nicholson, D. Scott	SRO

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Nunley, Steve	WSD, AL
Opperman, E.	WSRC/Savannah River
O'Rourke, Shirley	LANL, NM
Paz, Luis A.	WPD, AL
Reardon, Patrick T.	MS F-609, LANL
Richey, Richard	TSD, AL
Rowan, Randy	LANL
Schwendenman, Kathy	EASI, AL/WSD
Sena, Richard	NMSPO, AL
Slavin, Adam	MS 0423, SNL/NM
Smith, Carol	LANL
Smith, Richard	WMNW, Hanford
Snowden, Sharon	L-347, LLNL
Stancell, Douglas F.	DOE Oak Ridge
Stephenson, Bob	MHC
Stumpfl, Ed	Y-12, LMES
Thompson, Stephen A.	TSD, AL
Tipton, Greg	MS 5615, SNL/NM
Van Alstine, Mark	WSRC/Savannah River
Villa, Sandra	LANL
Wangler, Michael E.	EM-70, HQ
Weston, Louise M.	MS 0829, SNL/NM
Wilhelm, Donald M.	DOE Oakland
York, Allen	MS 0483, SNL/NM



U.S. DEPARTMENT OF ENERGY

# TECHNICAL MANUAL

OFFICE OF NATIONAL DEFENSE PROGRAMS

Albuquerque Operations Office

## Defense Programs Packaging Database

April 1998

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# TECHNICAL MANUAL

## DEFENSE PROGRAMS PACKAGING DATABASE


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DT-18	W88 W68 W69 W78	88001-5-031196 89003-3-063095 89004-3-031196 90011-1-111396
DT-19		None
DT-20	W80 W84 W70 W87	89013-1-013098 90019-1-013098 90020-1-091597 90022-0-071293
DT-22	U parts W62 W76 Pu and U parts	89011-3-061096 90016-2-112596 90017-2-112596 95007-0-061096
DT-23	B61 W55 Pits	89012-1-122295 90010-1-122295 90018-1-122295
FL	Pits	90023-2-041497
H1616-1	Tritium	91001-3-052197
H1616-2	Tritium	91008-4-102897
MH2800		None

# TECHNICAL MANUAL

## DEFENSE PROGRAMS PACKAGING DATABASE

### Revision Log

Rev. No.	Revision Date	Replacement Page/File(s) Issued	Approval Signature
0	4/15/96	All initial issuance pages	
1	10/07/96	Page/File(s):  Replace i-x with i-vii Replace 90001-0-042491 with DT-19 container info Remove 90005-2-061592 Replace 90022-1-071293 with 90022-0-071293 Replace 89011-2-041494 with 89011-3-061096 Add 95007-0-061096 to the DT-22 section Replace 89012-1-122295 with new page (same ID).	
2	06/13/97	Page/File(s):  Replace i-ii with i-ii Replace 90022-0-071293 with 90022-0-071293 Replace 90011-0-122091 with 90011-1-111396 Replace 90016-1-041494 with 90016-2-112596 Replace 90017-1-041494 with 90017-2-112596 Replace 90010-1-122295 with 90010-1-122295 Replace 90023-1-080792 with 90023-2-041497 Replace 91001-2-030995 with 91001-3-052197 Replace 91008-3-030995 with 91008-3-030995 Replace 91005-0-082592 with Container Model MH2800.	
3	04/10/98	Complete reissue except for tabbed pages with container figures. Updated to reflect recent DOE/AL organizational changes and to include new certificate revisions.	  Glenn V. Binns DP Packaging Manager

## INTRODUCTION

This manual consolidates unclassified Defense Programs (DP) information about packages currently certified by the Department of Energy, Albuquerque Operations Office (DOE/AL) for DOE sites only. All packages are of the B(U) or B(U)F classification. For international shipment, these are Type B packages that require unilateral approval only of the package design, and of any provisions that may be necessary for heat dissipation. This report does not include information about expired certificates, containers under development, or Offsite Transportation Authorizations (OTAs) for special assemblies.

While transportation of most of the packages is authorized under an Offsite Transportation Certificate (OTC), it should be noted that the H1616-2 package is authorized under an OTA. This container uses a hydrogen getter between the O-ring closure to capture tritium that may accumulate in this packaging. The Nuclear Regulatory Commission's 10 CFR 71 Type B packaging requirements do not allow the use of filters. To provide a sound design to protect the safety and health of workers and the public, and to protect the environment, this getter is part of the H1616-2 packaging.

The consolidated information includes an illustration of currently used containers, and for each package, a single page report composed of four sections: Identification Information, Authorization Basis, Package Description/Inventory, and Site Approvals. The Identification Information includes the file identification number, the weapon program code, and the container model. The Authorization Basis for a given package references the Safety Analysis Report for Packaging (SARP). The package Description/Inventory provides information concerning the dimensions, allowable package weight, and the number of each container initially manufactured. Dimensions are approximate. Refer to the SARP for detailed engineering drawings. The Site Approvals identify DOE organizations approved for package use, maintenance, and supply. Prior to using a package, a site must be designated as a package user by DOE/AL and meet restrictions noted in the OTC or OTA.

The name and phone number of key personnel at each site responsible for a package or packages are provided below:

Y-12 Plant, Oak Ridge, TN	Ed Stumpf	(423) 574-2547
Pantex Plant, Amarillo, TX	Ron Benson	(806) 477-4135
Lawrence Livermore National Laboratory	Ting Lo	(510) 422-8752
Sandia National Laboratories, New Mexico	Bob Stinebaugh	(505) 844-2534

The AL Weapon Surety Division (WSD) Defense Programs Packaging Manager, Mr. Glenn Binns, is the DOE contact for any questions or inquiries about the contents of this manual. Mr. Binns may be contacted by phone at (505) 845-4607, by fax at (505) 845-4209, or e-mail at gbinns@doeal.gov. Written comments should be sent to Mr. Binns at the following address:

U.S. Department of Energy  
Albuquerque Operations Office, WSD/Bldg. 382  
Kirtland AFB, East Pennsylvania and H Street  
P.O. Box 5400  
Albuquerque, NM 87185-5400

Your comments on the scope and accuracy of the information included in this manual are solicited. All comments will be reviewed, and upon request, a written response will be provided by WSD staff.

Please destroy superseded pages from the previous revision to this manual.



## **LIST OF ACRONYMS**

DOE/AL	Department of Energy, Albuquerque Operations Office
DP	Defense Programs
OTA	Offsite Transportation Authorization
OTC	Offsite Transportation Certificate
SARP	Safety Analysis Report for Packaging
TSRA	Transportation System Risk Assessment
WSD	Weapon Surety Division

## DESCRIPTION OF PACKAGE STATUS REPORT FORM DATA FIELDS

### IDENTIFICATION INFORMATION

File ID	A unique number consisting of the five digit OTA/OTC number, revision number, and issue date.
Package Model	The alphanumeric designation for the container.
Weapon Program Code	The alphanumeric designation that identifies the package contents.

### AUTHORIZATION BASIS

OTA/OTC #	The five digit number assigned by WSD to identify the Offsite Transportation Authorization or Certificate.
Rev. #	The current AL/WSD issue of the OTA/OTC, a number that corresponds to the sixth digit of the file identification number.
Issue Date	The date the OTA/OTC was approved by AL/NESD, and the six digit number that corresponds to the last six digits of the file identification number.
Expiration Date	The date the OTA/OTC is no longer valid.
SARP/TSRA	Identifies the document number, issue date, issuing organization, and point of contact for the SARP or TSRA.

### PACKAGE DESCRIPTION/INVENTORY

Original Quantity Manufactured	The number of containers in inventory. This number refers to the total number of containers of a particular type, such as DT-18, regardless of contents.
Empty Weight	The weight (pounds) of the container (without contents). Empty weight may or may not include internal supports, which frequently are content-dependent.
Gross Weight	The maximum shipping weight (pounds) for a package as designated by the OTA/OTC and container label plate. This value is independent of the contents.
External Height	The maximum outside height length (inches) for the container.
External Diameter	The maximum outside diameter (inches) for the container.
Cavity Height	The inside height/length (inches) of the inner container/containment vessel.
Cavity Diameter	The inside diameter (inches) of the inner container/containment vessel.
Description	A brief statement that details the features of a container, including its general structure, type of closure mechanism, and materials of construction.

Other Data	Miscellaneous information related to package maintenance or handling, and specific restrictions or limitations concerning use and/or supply.
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## **SITE APPROVALS**

Sites Approved for Package Use	Sites authorized by AL/WSD to use a particular package in accordance with the corresponding issued OTC or OTA.
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Sites Approved for Package Maintenance	Sites authorized by AL/WSD to perform maintenance, annual recertification, and refurbishment on a container.
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Sites Approved for Package Supply	Sites authorized by AL/WSD to supply the container to approved users.
--------------------------------------	---

# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: DT-18

File Identification No: 89003-3-063095

Weapon Program Code: W68

## AUTHORIZATION BASIS:

Issue Date: 06/30/1995

OTC 89003 Rev. # 3

Expiration Date: 07/31/2000

Package Type: B(U)F

SARP/TSRA NUMBER	ISSUE DATE	ORGANIZATION	DEPARTMENT	PHONE
Y/DD-428-IA/R1	05/30/1995	LMES	Y-12 Plant, Nuclear Pkg Systems Mgr	(423) 574-2547

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 625

Gross Highest Approved Wt. (lb.): 500 Empty Package Wt (lb.): 260.6

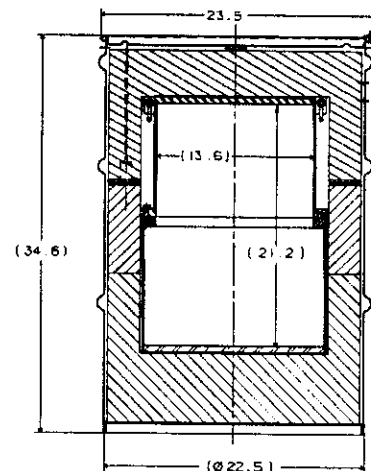
External Height or Length (in) . . . : 34.6 External Diameter (in): 23.5

Cavity Height or Length (in) . . . . : 21.2 Cavity Diameter (in) . : 13.6

Description : 55 gallon carbon steel drum with lock ring closure and Type 304/304L stainless steel inner container (middle flange)

Other Data (handling, maintenance, etc.):

Only carbon steel drum authorized. Tie-down in accordance with Technical Manual, "Tie-Down Procedures for Type B Containers".



## SITE APPROVALS:

*NOTE: Site approvals pertain to use of the package and its contents, as described in the associated SARP*

### Sites Approved for Package Use

Lawrence Livermore National Laboratory  
Los Alamos National Laboratory  
Pantex Plant/Mason & Hanger  
Sandia National Laboratories, New Mexico  
Y-12 Plant

### Sites Approved for Package Maintenance

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Supply

Y-12 Plant

# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: DT-18

File Identification No: 89004-3-031196

Weapon Program Code: W69

## AUTHORIZATION BASIS:

Issue Date: 03/11/1996

OTC 89004 Rev. # 3

Expiration Date: 03/01/2001

Package Type: B(U)F

### SARP/TSRA

NUMBER

ISSUE DATE

ORGANIZATION

DEPARTMENT

PHONE

Y/DD-429/R1

08/18/1995

LMES

Y-12 Plant, Nuclear Pkg Systems Mgr

(423) 574-2547

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 625

Gross Highest Approved Wt. (lb.): 500 Empty Package Wt (lb.): 260.6

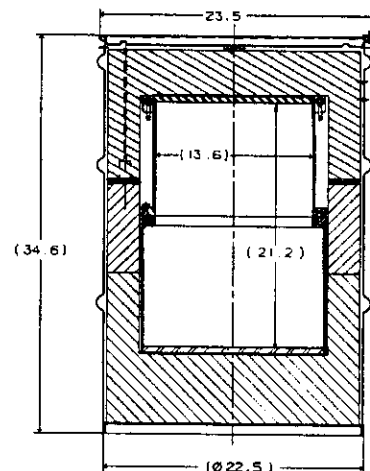
External Height or Length (in) . . . : 34.6 External Diameter (in): 23.5

Cavity Height or Length (in) . . . . : 21.2 Cavity Diameter (in) . : 13.6

Description : 55 gallon carbon steel drum with lock ring closure and Type 304/304L stainless steel inner container (middle flange)

Other Data (handling, maintenance, etc.):

Only carbon steel drum authorized. Tie-down in accordance with Technical Manual, "Tie-Down Procedures for Type B Containers".



## SITE APPROVALS:

*NOTE: Site approvals pertain to use of the package and its contents, as described in the associated SARP*

### Sites Approved for Package Use

Pantex Plant/Mason & Hanger

Y-12 Plant

### Sites Approved for Package Maintenance

Pantex Plant/Mason & Hanger

Y-12 Plant

### Sites Approved for Package Supply

Y-12 Plant

# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: DT-18

File Identification No: 90011-1-111396

Weapon Program Code: W78

## AUTHORIZATION BASIS:

Issue Date: 11/13/1996

OTC 90011 Rev. # 1

Expiration Date: 12/01/1998

Package Type: B(U)F

### SARP/TSRA NUMBER

### ISSUE DATE

### ORGANIZATION

### DEPARTMENT

### PHONE

Y/LF-43-IA

10/09/1991

LMES

Y-12 Plant, Nuclear Pkg Systems Mgr

(423) 574-2547

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 625

Gross Highest Approved Wt. (lb.): 500 Empty Package Wt (lb.): 260.6

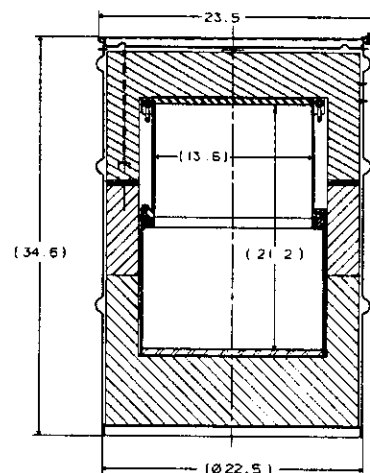
External Height or Length (in) . . . : 34.6 External Diameter (in): 23.5

Cavity Height or Length (in) . . . . : 21.2 Cavity Diameter (in) . : 13.6

Description : 55 gallon carbon steel drum with lock ring closure and Type 304/304L stainless steel inner container (middle flange)

Other Data (handling, maintenance, etc.):

Only carbon steel drum authorized. Tie-down in accordance with Technical Manual, "Tie-Down Procedures for Type B Containers".



## SITE APPROVALS:

*NOTE: Site approvals pertain to use of the package and its contents as described in the associated SARP*

### Sites Approved for Package Use

Los Alamos National Laboratory

Pantex Plant/Mason & Hanger

Y-12 Plant

### Sites Approved for Package Maintenance

Pantex Plant Mason & Hanger

Y-12 Plant

### Sites Approved for Package Supply

Y-12 Plant

# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: DT-18

File Identification No: 88001-5-031196

Weapon Program Code: W88

## AUTHORIZATION BASIS:

Issue Date: 03/11/1996

OTC 88001 Rev. # 5 Expiration Date: 03/01/2001

Package Type: B(U)F

SARP/TSRA NUMBER	ISSUE DATE	ORGANIZATION	DEPARTMENT	PHONE
Y/DD-422-1A/R3	09/29/1995	LMES	Y-12 Plant, Nuclear Pkg Systems Mgr	(423) 574-2547

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 625

Gross Highest Approved Wt. (lb.): 500 Empty Package Wt (lb.): 260.6

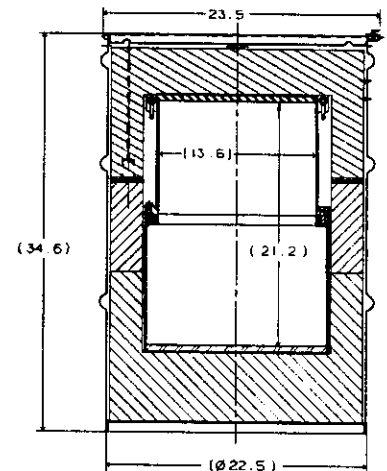
External Height or Length (in) . . . : 34.6 External Diameter (in): 23.5

Cavity Height or Length (in) . . . . : 21.2 Cavity Diameter (in) . : 13.6

Description : 55 gallon carbon steel drum with lock ring closure and Type 304/304L stainless steel inner container (middle flange)

Other Data (handling, maintenance, etc.):

Only carbon steel drum authorized. Tie-down in accordance with Technical Manual, "Tie-Down Procedures for Type B Containers".



## SITE APPROVALS:

*NOTE: Site approvals pertain to use of the package and its contents, as described in the associated SARP*

### Sites Approved for Package Use

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Maintenance

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Supply

Y-12 Plant

# Defense Programs Packaging Database

## Container Model DT-19

02-Apr-98

### Weight:

Gross Highest Approved Weight (lb): 1100

Tare Weight (lb): 652

Original Quantity

Manufactured: 85

### Dimensions:

External Height or Length (in): 73.5

External Diameter (in): 29

Cavity Height or Length (in): 58.1

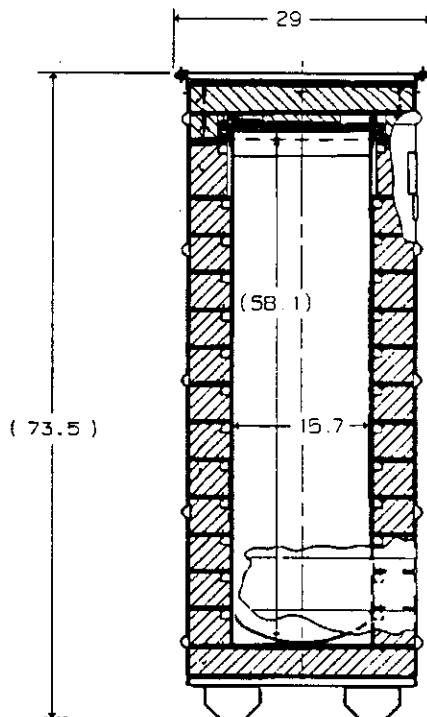
Cavity Diameter (in): 15.7

### Description:

157 gallon Type 304 stainless steel drum with 304L stainless steel inner container

### OtherData:

Tie-down in accordance with Technical Manual "Tie-down Procedures for Type B Containers"





# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: DT-20

File Identification No: 90020-1-091597

Weapon Program Code: W70

## AUTHORIZATION BASIS:

Issue Date: 09/15/1997

OTC 90020 Rev. # 1

Expiration Date: 09/30/2002

Package Type: B(U)F

SARP/TSRA NUMBER	ISSUE DATE	ORGANIZATION	DEPARTMENT	PHONE
Y/LF-45-IA/R1	03/18/1997	LMES	Y-12 Plant, Nuclear Pkg Systems Mgr.	(423) 574-2547

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 201

Gross Highest Approved Wt. (lb.): 1084 Empty Package Wt (lb.): 608.6

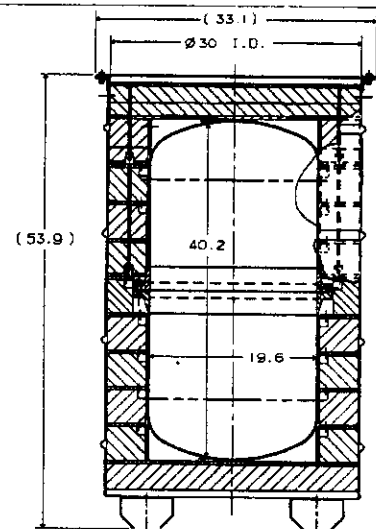
External Height or Length (in) . . . : 53.9 External Diameter (in): 33.1

Cavity Height or Length (in) . . . . : 40.2 Cavity Diameter (in) . : 19.6

Description : 146 gallon 304/304L stainless steel drum with 304L stainless steel inner container (middle flange).

Other Data (handling, maintenance, etc.):

Tie-down in accordance with "Tie-Down Procedures for Type B Packages"



## SITE APPROVALS:

NOTE: Site approvals pertain to use of the package and its contents, as described in the associated SARP

### Sites Approved for Package Use

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Maintenance

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Supply

Y-12 Plant

# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: DT-20

File Identification No: 89013-1-013098

Weapon Program Code: W80

## AUTHORIZATION BASIS:

Issue Date: 01/30/1998

OTC 89013 Rev. # 1

Expiration Date: 02/01/2003

Package Type: B(U)F

SARP/TSRA NUMBER	ISSUE DATE	ORGANIZATION	DEPARTMENT	PHONE
YLF-542/R0	08/29/1997	LMES	Y-12 Plant, Nuclear Pkg Systems Mgr.	(423) 574-2547

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 201

Gross Highest Approved Wt. (lb.): 1084 Empty Package Wt (lb.): 608.6

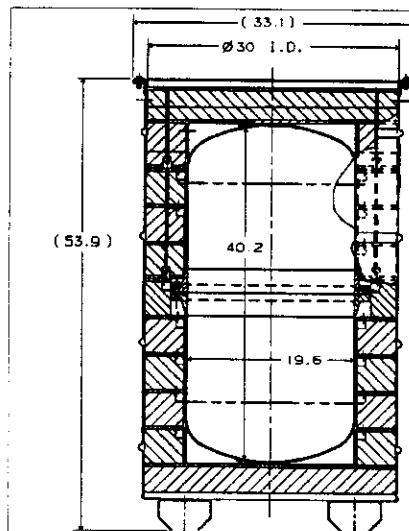
External Height or Length (in) . . . : 53.9 External Diameter (in): 33.1

Cavity Height or Length (in) . . . . : 40.2 Cavity Diameter (in) . : 19.6

Description : 146 gallon 304/304L stainless steel drum with 304L stainless steel inner container (middle flange).

Other Data (handling, maintenance, etc.):

Tie-down in accordance with "Tie-Down Procedures for Type B Packages"



## SITE APPROVALS:

NOTE: Site approvals pertain to use of the package and its contents, as described in the associated SARP

### Sites Approved for Package Use

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Maintenance

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Supply

Y-12 Plant

# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: DT-20

File Identification No: 90019-1-013098

Weapon Program Code: W84

## AUTHORIZATION BASIS:

Issue Date: 01/30/1998

OTC 90019 Rev. # 1

Expiration Date: 02/01/2003

Package Type: B(U)F

SARP/TSRA NUMBER	ISSUE DATE	ORGANIZATION	DEPARTMENT	PHONE
Y/LF-542/R0	08/29/1997	LMES	Y-12 Plant, Nuclear Pkg Systems Mgr	(423) 574-2547

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 201

Gross Highest Approved Wt. (lb.): 1084 Empty Package Wt (lb.): 608.6

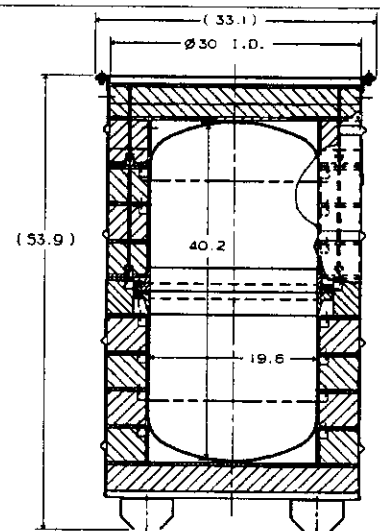
External Height or Length (in) . . . : 53.9 External Diameter (in): 33.1

Cavity Height or Length (in) . . . . : 40.2 Cavity Diameter (in) . : 19.6

Description : 146 gallon 304/304L stainless steel drum with 304L stainless steel inner container (middle flange).

Other Data (handling, maintenance, etc.):

Tie-down in accordance with "Tie-Down Procedures for Type B Packages"



## SITE APPROVALS:

*NOTE: Site approvals pertain to use of the package and its contents, as described in the associated SARP*

### Sites Approved for Package Use

Pantex Plant/Mason & Hanger

Y-12 Plant

### Sites Approved for Package Maintenance

Pantex Plant/Mason & Hanger

Y-12 Plant

### Sites Approved for Package Supply

Y-12 Plant

# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: DT-20

File Identification No: 90022-0-071293

Weapon Program Code: W87

## AUTHORIZATION BASIS:

Issue Date: 07/12/1993

OTC 90022 Rev. # 0

Expiration Date: 07/01/1998

Package Type: B(U)F

SARP/TSRA NUMBER	ISSUE DATE	ORGANIZATION	DEPARTMENT	PHONE
Y/LF-254-IA	02/26/1993	LMES	Y-12 Plant, Nuclear Pkg Systems Mgr	(423) 574-2547

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 201

Gross Highest Approved Wt. (lb.): 1084 Empty Package Wt (lb.): 608.6

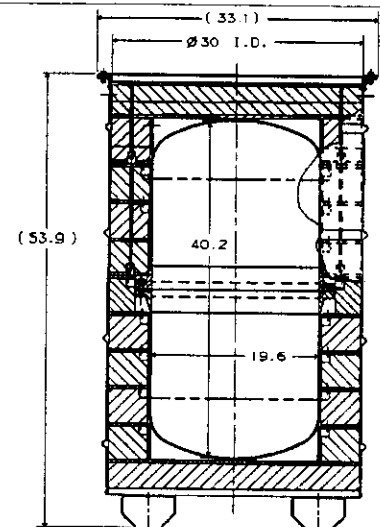
External Height or Length (in) . . . : 53.9 External Diameter (in): 33.1

Cavity Height or Length (in) . . . . : 40.2 Cavity Diameter (in) . : 19.6

Description : 146 gallon 304/304L stainless steel drum with 304L stainless steel inner container (middle flange).

Other Data (handling, maintenance, etc.):

Tie-down in accordance with "Tie-Down Procedures for Type B Packages"



## SITE APPROVALS:

NOTE: Site approvals pertain to use of the package and its contents as described in the associated SARP

### Sites Approved for Package Use

Los Alamos National Laboratory  
Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Maintenance

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Supply

Y-12 Plant

# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: DT-22

File Identification No: 95007-0-061096

Weapon Program Code: Pu and U parts

## AUTHORIZATION BASIS:

Issue Date: 06/10/1996

OTC 95007 Rev. # 0

Expiration Date: 06/01/2001

Package Type: B(U)F

SARP/TSRA NUMBER	ISSUE DATE	ORGANIZATION	DEPARTMENT	PHONE
Y/LF-500/R1	05/17/1996	LMES	Y-12 Plant, Nuclear Pkg Systems Mgr	(423) 574-2547

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 437

Gross Highest Approved Wt. (lb.): 385 Empty Package Wt (lb.): 237.5

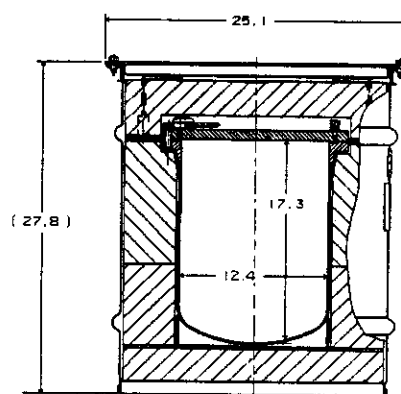
External Height or Length (in) . . . : 27.8 External Diameter (in): 25.1

Cavity Height or Length (in) . . . . : 17.3 Cavity Diameter (in) . : 12.4

Description : 45 gallon 304/304L stainless steel drum with 304/304L stainless steel inner container

Other Data (handling, maintenance, etc.):

Only drum with bolted closure design in use.



## SITE APPROVALS:

*NOTE: Site approvals pertain to use of the package and its contents, as described in the associated SARP*

### Sites Approved for Package Use

Lawrence Livermore National Laboratory  
Los Alamos National Laboratory  
Rocky Flats  
Y-12 Plant

### Sites Approved for Package Maintenance

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Supply

Y-12 Plant

# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: DT-22

File Identification No: 89011-3-061096

Weapon Program Code: U metal parts

## AUTHORIZATION BASIS:

Issue Date: 06/10/1996

OTC 89011 Rev. # 3 Expiration Date: 06/01/2001

Package Type: B(U)F

SARP/TSRA NUMBER	ISSUE DATE	ORGANIZATION	DEPARTMENT	PHONE
Y/LF-500/R1	05/17/1996	LMES	Y-12 Plant, Nuclear Pkg Systems Mgr	(423) 574-2547

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 437

Gross Highest Approved Wt. (lb.): 385 Empty Package Wt (lb.): 237.5

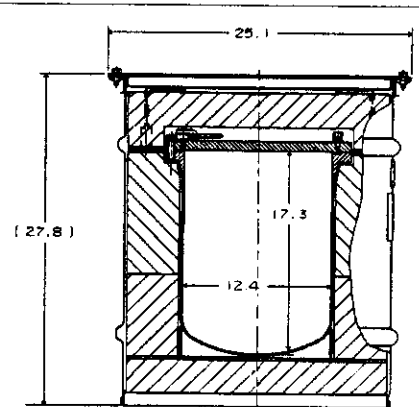
External Height or Length (in) . . . : 27.8 External Diameter (in): 25.1

Cavity Height or Length (in) . . . . : 17.3 Cavity Diameter (in) . : 12.4

Description : 45 gallon 304/304L stainless steel drum with 304/304L stainless steel inner container

Other Data (handling, maintenance, etc.):

Only drum with bolted closure design in use.



## SITE APPROVALS:

*NOTE: Site approvals pertain to use of the package and its contents, as described in the associated SARP*

### Sites Approved for Package Use

Lawrence Livermore National Laboratory  
Pantex Plant/Mason & Hanger  
Rocky Flats  
Y-12 Plant

### Sites Approved for Package Maintenance

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Supply

Y-12 Plant

# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: DT-22

File Identification No: 90016-2-112596

Weapon Program Code: W62

## AUTHORIZATION BASIS:

Issue Date: 11/25/1996

OTC 90016 Rev. # 2 Expiration Date: 11/30/2001

Package Type: B(U)F

SARP/TSRA NUMBER	ISSUE DATE	ORGANIZATION	DEPARTMENT	PHONE
Y/LF-488/R0	06/20/1996	LMES	Y-12 Plant, Nuclear Pkg Systems Mgr	(423) 574-2547

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 437

Gross Highest Approved Wt. (lb.): 385 Empty Package Wt (lb.): 237.5

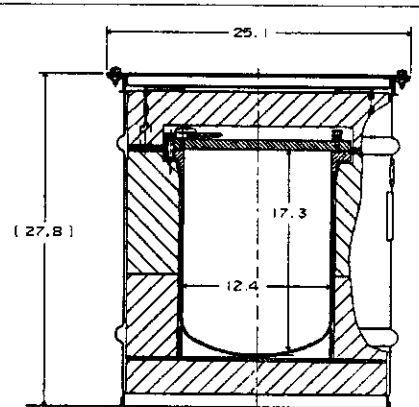
External Height or Length (in) . . . : 27.8 External Diameter (in): 25.1

Cavity Height or Length (in) . . . . : 17.3 Cavity Diameter (in) . : 12.4

Description : 45 gallon 304/304L stainless steel drum with 304/304L stainless steel inner container

Other Data (handling, maintenance, etc.):

Only drum with bolted closure design in use.



## SITE APPROVALS:

*NOTE: Site approvals pertain to use of the package and its contents, as described in the associated SARP*

### Sites Approved for Package Use

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Maintenance

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Supply

Y-12 Plant

# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: DT-22

File Identification No: 90017-2-112596

Weapon Program Code: W76

## AUTHORIZATION BASIS:

Issue Date: 11/25/1996

OTC 90017 Rev. # 2 Expiration Date: 11/30/2001

Package Type: B(U)F

SARP/TSRA NUMBER	ISSUE DATE	ORGANIZATION	DEPARTMENT	PHONE
Y/LF-488/R0	06/20/1996	LMES	Y-12 Plant, Nuclear Pkg Systems Mgr	(423) 574-2547

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 437

Gross Highest Approved Wt. (lb.): 385 Empty Package Wt (lb.): 237.5

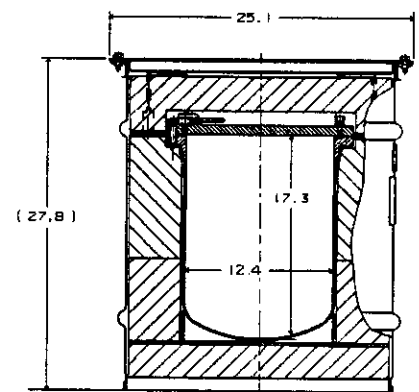
External Height or Length (in) . . . : 27.8 External Diameter (in): 25.1

Cavity Height or Length (in) . . . . : 17.3 Cavity Diameter (in) . : 12.4

Description : 45 gallon 304/304L stainless steel drum with 304/304L stainless steel inner container

Other Data (handling, maintenance, etc.):

Only drum with bolted closure design in use.



## SITE APPROVALS:

*NOTE: Site approvals pertain to use of the package and its contents, as described in the associated SARP*

### Sites Approved for Package Use

Los Alamos National Laboratory  
Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Maintenance

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Supply

Y-12 Plant



# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: DT-23

File Identification No: 89012-1-122295

Weapon Program Code: B61

## AUTHORIZATION BASIS:

Issue Date: 12/22/1995

OTC 89012 Rev. # 1

Expiration Date: 01/01/2001

Package Type: B(U)F

SARP/TSRA NUMBER	ISSUE DATE	ORGANIZATION	DEPARTMENT	PHONE
Y/LF-489-IA/R0	11/10/1995	LMES	Y-12 Plant, Nuclear Pkg Systems Mgr	(423) 574-2547

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 508

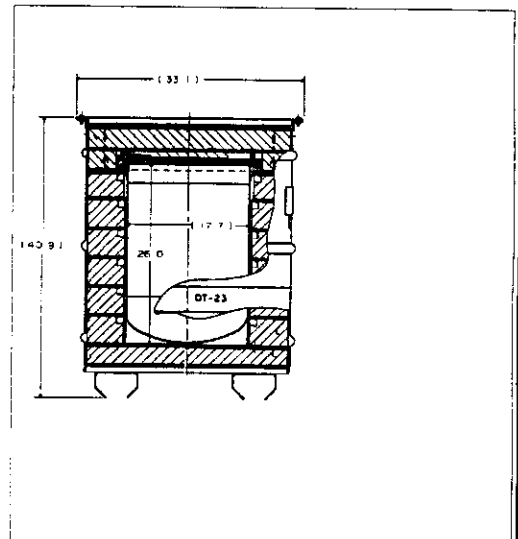
Gross Highest Approved Wt. (lb.): 800 Empty Package Wt (lb.): 542.2

External Height or Length (in) . . . : 40.9 External Diameter (in): 33.1

Cavity Height or Length (in) . . . . : 26.0 Cavity Diameter (in) . : 17.7

Description : 109 gallon 304 stainless steel drum with 304 stainless steel inner container

Other Data (handling, maintenance, etc.):



## SITE APPROVALS:

NOTE: Site approvals pertain to use of the package and its contents, as described in the associated SARP

### Sites Approved for Package Use

Los Alamos National Laboratory  
Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Maintenance

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Supply

Y-12 Plant

# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: DT-23

File Identification No: 90018-1-122295

Weapon Program Code: Pits

## AUTHORIZATION BASIS:

Issue Date: 12/22/1995

OTC 90018 Rev. # 1 Expiration Date: 01/01/2001

Package Type: B(U)F

SARP/TSRA NUMBER	ISSUE DATE	ORGANIZATION	DEPARTMENT	PHONE
Y/LF-489-IA/R0	11/10/1995	LMES	Y-12 Plant, Nuclear Pkg Systems Mgr	(423) 574-2547

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 508

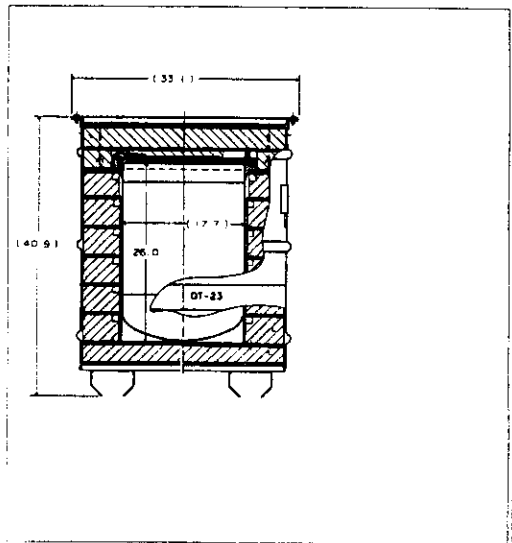
Gross Highest Approved Wt. (lb.): 800 Empty Package Wt (lb.): 542.2

External Height or Length (in) . . . : 40.9 External Diameter (in): 33.1

Cavity Height or Length (in) . . . . : 26.0 Cavity Diameter (in) . : 17.7

Description : 109 gallon 304 stainless steel drum with 304 stainless steel inner container

Other Data (handling, maintenance, etc.):



## SITE APPROVALS:

NOTE: Site approvals pertain to use of the package and its contents as described in the associated SARP

### Sites Approved for Package Use

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Maintenance

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Supply

Y-12 Plant

# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: DT-23

File Identification No: 90010-1-122295

Weapon Program Code: W55

## AUTHORIZATION BASIS:

Issue Date: 12/22/1995

OTC 90010 Rev. # 1

Expiration Date: 01/01/2001

Package Type: B(U)F

SARP/TSRA NUMBER	ISSUE DATE	ORGANIZATION	DEPARTMENT	PHONE
Y/LF-489-IA/R0	11/10/1995	LMES	Y-12 Plant, Nuclear Pkg Systems Mgr	(423) 574-2547

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 508

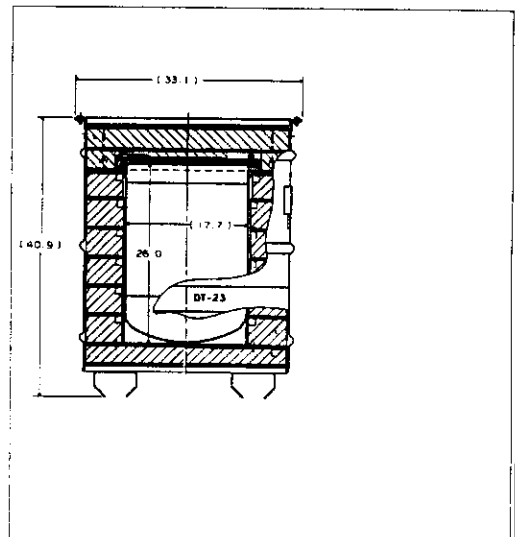
Gross Highest Approved Wt. (lb.): 800 Empty Package Wt (lb.): 542.2

External Height or Length (in) . . . : 40.9 External Diameter (in): 33.1

Cavity Height or Length (in) . . . . : 26.0 Cavity Diameter (in) . : 17.7

Description : 109 gallon 304 stainless steel drum with 304 stainless steel inner container

Other Data (handling, maintenance, etc.):



## SITE APPROVALS:

NOTE: Site approvals pertain to use of the package and its contents, as described in the associated SARP

### Sites Approved for Package Use

Los Alamos National Laboratory  
Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Maintenance

Pantex Plant/Mason & Hanger  
Y-12 Plant

### Sites Approved for Package Supply

Y-12 Plant

# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: FL

File Identification No: 90023-2-041497

Weapon Program Code: Pits

## AUTHORIZATION BASIS:

Issue Date: 04/14/1997

OTC 90023 Rev. # 2

Expiration Date: 04/15/2002

Package Type: B(U)F

SARP/TSRA NUMBER	ISSUE DATE	ORGANIZATION	DEPARTMENT	PHONE
CODT-96-0648	04/15/1997	LLNL	Model FL Program Manager	(510) 422-8752
CODT-97-0114	03/28/1997	LLNL	Model FL Program Manager	(510) 422-8752

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 300

Gross Highest Approved Wt. (lb.): 370 Empty Package Wt (lb.): 318.0

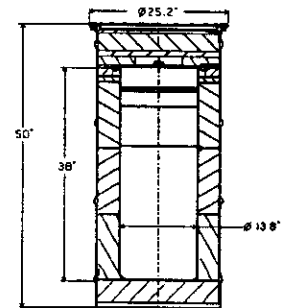
External Height or Length (in) . . . : 50.0 External Diameter (in): 25.2

Cavity Height or Length (in) . . . . : 38.0 Cavity Diameter (in) . : 13.8

Description : 84 gallon 304 stainless steel drum with stainless steel inner container.

Other Data (handling, maintenance, etc.):

Tie-down in accordance with "Tie-down Procedures for Type B Containers".



## SITE APPROVALS:

NOTE: Site approvals pertain to use of the package and its contents, as described in the associated SARP

### Sites Approved for Package Use

Lawrence Livermore National Laboratory  
Los Alamos National Laboratory  
Pantex Plant/Mason & Hanger  
Rocky Flats  
Savannah River Site

### Sites Approved for Package Maintenance

Pantex Plant/Mason & Hanger

### Sites Approved for Package Supply

Pantex Plant/Mason & Hanger

# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: H1616-1

File Identification No: 91001-3-052197

Weapon Program Code: Tritium

## AUTHORIZATION BASIS:

Issue Date: 05/21/1997

OTC 91001 Rev. # 3

Expiration Date: 05/31/2002

Package Type: B(U)

SARP/TSRA NUMBER	ISSUE DATE	ORGANIZATION	DEPARTMENT	PHONE
SAND91-2205	11/25/1996	SNL-NM	H1616 Program Manager	(505) 844-5400

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 2200

Gross Highest Approved Wt. (lb.): 136 Empty Package Wt (lb.): 120.0

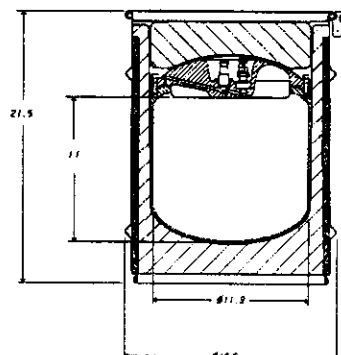
External Height or Length (in) . . . : 21.5 External Diameter (in): 16.5

Cavity Height or Length (in) . . . . : 14.0 Cavity Diameter (in) . : 11.9

Description : 16 gallon 304 stainless steel drum with lock ring closure and 304 stainless steel containment vessel.

Other Data (handling, maintenance, etc.):

Tie-down in accordance with "Tie-Down Procedures for Type B Packages". The listed cavity height is greater than the height available for components (see sketch).



## SITE APPROVALS:

NOTE: Site approvals pertain to use of the package and its contents, as described in the associated SARP

### Sites Approved for Package Use

Lawrence Livermore National Laboratory  
Los Alamos National Laboratory  
Mound Site  
Pantex Plant/Mason & Hanger  
Sandia National Laboratories, New Mexico  
Savannah River Site

### Sites Approved for Package Maintenance

Savannah River Site

### Sites Approved for Package Supply

Savannah River Site

# PACKAGE STATUS REPORT

## IDENTIFICATION INFORMATION:

Package Model: H1616-2

File Identification No: 91008-4-102897

Weapon Program Code: Tritium

## AUTHORIZATION BASIS:

Issue Date: 10/28/1997

OTC 91008 Rev. # 4

Expiration Date: 11/01/2002

Package Type: B(U)

SARP/TSRA NUMBER	ISSUE DATE	ORGANIZATION	DEPARTMENT	PHONE
SAND91-2205	11/25/1996	SNL/NM	H1616 Program Mgr.	(505) 844-5400

## PACKAGE DESCRIPTION/INVENTORY:

Original Quantity Manufactured: 400

Gross Highest Approved Wt. (lb.): 158 Empty Package Wt (lb.): 142.0

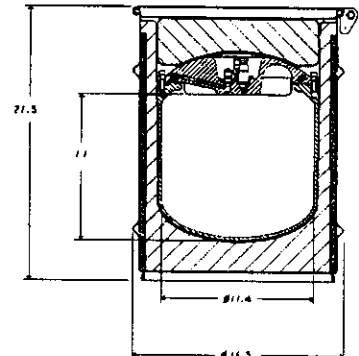
External Height or Length (in) . . . : 21.5 External Diameter (in): 16.5

Cavity Height or Length (in) . . . . : 13.8 Cavity Diameter (in) . : 11.4

Description : 16 gallon 304 stainless steel drum with lock ring closure and 304 stainless steel containment vessel.

Other Data (handling, maintenance, etc.):

Tie-down in accordance with Technical Manual "Tie-Down Procedures for Type B Containers". The listed cavity height is greater than the height available for components (see sketch).



## SITE APPROVALS:

NOTE: Site approvals pertain to use of the package and its contents, as described in the associated SARP

### Sites Approved for Package Use

Lawrence Livermore National Laboratory  
Los Alamos National Laboratory  
Mound Site  
Pantex Plant/Mason & Hanger  
Sandia National Laboratories, New Mexico  
Savannah River Site

### Sites Approved for Package Maintenance

Savannah River Site

### Sites Approved for Package Supply

Savannah River Site

# Defense Programs Packaging Database

## Container Model MH2800

02-Apr-98

<b>Weight:</b>	Gross Highest Approved Weight (lb):	1320	<b>Original Quantity</b>	<b>Manufactured:</b>	200
	Tare Weight (lb):	607.9			

<b>Dimensions:</b>	External Height or Length (in):	53	External Diameter (in):	34
	Cavity Height or Length (in):	36.7	Cavity Diameter (in):	19.6

### Description:

146 gallon 304 stainless steel drum with 304 stainless steel inner container

### OtherData:

Transportation of the B28 in the MH2800 was previously authorized under certificate 91005 Rev 0, which expired February 1, 1997.

